

Radiation-Hardened HDTV Sensors, Phase II

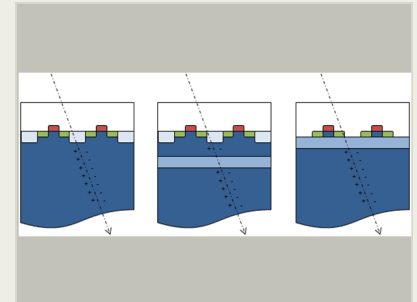
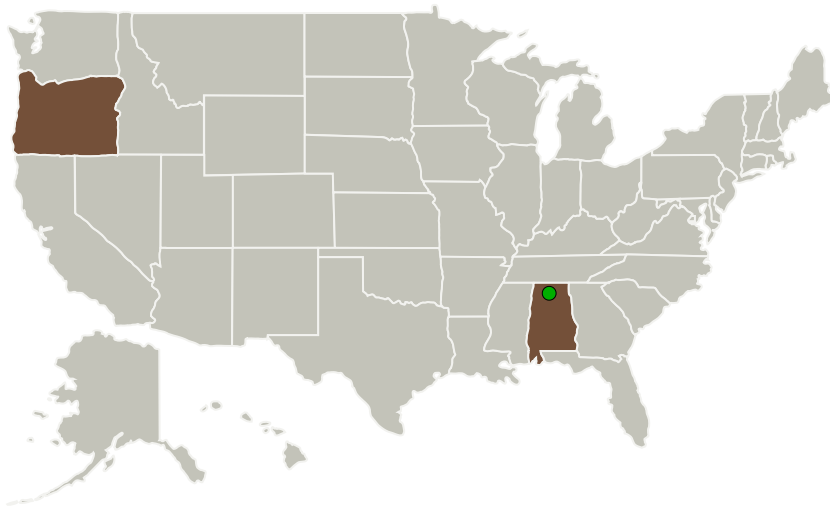
Completed Technology Project (2012 - 2016)



Project Introduction

High-performance HDTV cameras are commercially widespread, but are not presently available in radiation-hard versions. The objective of the proposed SBIR effort is to develop and commercialize a radiation-hard, high-performance HDTV sensor for NASA missions and other space-based and high-energy physics applications. Key features of this program are the use of radiation-hard, fully depleted silicon photodiodes to maximize quantum efficiency, and the use of both radiation-hard-by-process and radiation-hard-by-design strategies in the development of the highly integrated readout circuit.

Primary U.S. Work Locations and Key Partners



Radiation-Hardened HDTV Sensors Project Image

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Organizations Performing Work	Role	Type	Location
Voxtel, Inc.	Lead Organization	Industry	Beaverton, Oregon
● Marshall Space Flight Center (MSFC)	Supporting Organization	NASA Center	Huntsville, Alabama

Primary U.S. Work Locations

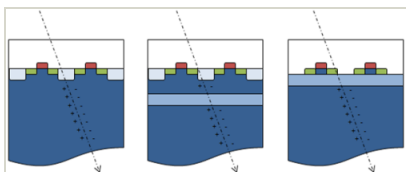
Alabama	Oregon
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Images



Project Image

Radiation-Hardened HDTV Sensors

Project Image

(<https://techport.nasa.gov/image/129233>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Voxtel, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Adam Lee

Co-Investigator:

Adam J Lee

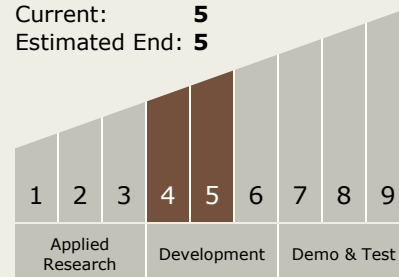
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Technology Maturity (TRL)

Start: **4**
Current: **5**
Estimated End: **5**



Technology Areas

Primary:

- TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
 - └ TX05.5 Revolutionary Communications Technologies
 - └ TX05.5.2 Quantum Communications

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System